Interview assignment

Complete the assignment in Python using any libraries you like.

1. Do a manual ad-hoc analysis:
    1. Find a department with more than 20 workers with biggest termination rate (over the whole time period). Termination rate is defined as `(# of terminated workers) / (# of workers)`.
    2. Which Termination reason contributed the most to the high termination rate?
    3. Is the distribution of Termination reasons similar in other departments?
2. Build predictive model: who is going to leave in next 12 months?
    - Building a good model can take a lot of time to prototype and research. We know that and don't require that kind of investment in the assignment: pick a basic model You think could work and is easy to implement. It's not a problem if it doesn't work well, we can discuss how would You improve it during the interview.
    - To make it easier, work just with data for year 2014 (for training and testing as well, essentially predicting "who is going to leave this year?"). Introduce proper time series modelling only if you finished rest of the tasks (it is not expected).
    - To make it easier, work with just
        - numerical features,
        - gender,
        - indicator if they are from `Store Management` department,
        - indicator if they are form `Produce` department
      (discard rest of the categoricals).
    - Consider we might ask questions about how do You measure model quality, how do You decide if it's good and how do You ensure you don't overfit.